**AGENDA:** March 25, 2003 **4.10** 

**CATEGORY:** Consent

**DEPT.:** Public Works

**TITLE:** Shoreline Golf Links Irrigation Well,

Project 00-47

## **RECOMMENDATION**

Accept Shoreline Golf Links Irrigation Well, Project 00-47, and authorize the final contract payment.

## **FISCAL IMPACT**

Shoreline Golf Links Irrigation Well, Project 00-47, is a capital improvement project with an amended budget of \$525,000. The final construction cost of \$357,340 is within the construction budget of \$377,515.

## **BACKGROUND AND ANALYSIS**

On July 11, 2000, the City Council awarded the construction contract to Maggiora Brothers Drilling, Inc. of Watsonville at the low bid price of \$377,515, which included a \$35,000 construction contingency. The project included drilling a 4" diameter shallow aquifer monitoring well 100' deep, a 4" diameter deep aquifer monitoring well 536' deep and a 16" diameter production well 600' deep for golf course irrigation water. The production well was drilled anticipating a discharge rate of up to 800 gallons per minute. After completing the production well, the discharge rate was only 200 gallons per minute.

In an attempt to increase the well production, the consulting engineer determined a pump could be installed in the deep monitoring well without increasing the draw-down of the groundwater surface to a level that would adversely impact the production well. Both the production well and the monitoring well are now on-line and producing a combined 260 gallons per minute, which is about one-third of the targeted 800 gallons per minute. Although the production is less than anticipated, the well water will decrease the golf course's reliance on domestic water and the wells will provide a less costly source of irrigation water.

A significant delay occurred when the wells were ready to go on-line. PG&E's field crew started to install the new pole-mounted transformer and determined that it would not have adequate clearance from the ground surface to meet their safety regulations. PG&E

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reengineered the service twice before finally finding a workable solution. Finally, in December 2002, the electric service was completed by PG&E.

The final construction cost of \$357,340.88 included three change orders totaling \$14,825.80, as shown on Attachment 1. All work has been completed in accordance with the plans and specifications.

## **PUBLIC NOTICING**—Agenda posting.

Prepared by: Approved by:

Chris T. Halvorsen Cathy R. Lazarus
Construction Engineer Public Works Director

Kevin C. Duggan City Manager

CTH/8/CAM 977-03-25-03M-2^

Attachment: 1. Change Order Log

cc: Mr. Mike Maggiora

Maggiora Brothers Drilling, Inc.

APWD—Ko, DE, GCM, CE, SPWI, F/c